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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,813	12/08/2000	Vahan Avetisian	259/175	3080
7590		07/08/2004	EXAMINER	
Thomas J. Brindisi		BERGIN, JAMES S		
20 28th Place, #B		ART UNIT		
Venice,, CA 90291		PAPER NUMBER		
		3641		
DATE MAILED: 07/08/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/733,813

Applicant(s)

AVETISIAN ET AL.

Examiner

James S. Bergin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-16, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) 22, 24 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-16, 19, 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-7, 8-16, 19 and 20, drawn to an automotive pyrotechnic initiator that does not have a glass-to-metal sealed header assembly, and method of making the same pyrotechnic initiator, classified in class 102, subclass 202.5.
  - II. Claims 22, 24 and 25, drawn to a pyrotechnic initiator having a glass-to-metal sealed header assembly, classified in class 102, subclass 202.1.
2. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the initiator of group I can perform it's function without a glass-to-metal sealed header assembly . The subcombination has separate utility such as a pyrotechnic initiator of small lifesaving floatation device.
3. Because these inventions are distinct for the reasons given above, because the search for group I and group II is substantially divergent, and because the inventive groups have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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4. During a telephone conversation with Thomas J. Brindisi on 6/22/2004 a provisional election was made without traverse to prosecute the invention of group 1, claims 1-7, 8-16, 19 and 20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 22, 24 and 25 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention. The above grounds for restriction were agreed upon with Mr. Brindisi in the above referenced telephone conversation of 6/22/2004. Mr. Brindisi agreed to cancel the non-elected claims 22, 24 and 25 in response to this action.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A).

Refouvelet et al. disclose the initiator and the method of making the initiator substantially as claimed. Refouvelet et al.'s integral and unitary molded plastic body (fig. 1) surrounding the initiator subassembly provides structural support and installation orientation features. Furthermore, Refouvelet et al.'s initiator subassembly comprises a glass-to-metal sealed header assembly (fig. 1, col. 2, lines 25 – 67).

However, Refouvelet et al. do not disclose, in Fig. 1, the electrically-nonconductive overmolded body surrounding substantially all of the initiator subassembly. Lines 4-6 of the abstract state that the casing includes a molded plastics material surrounding at least the end plate and a portion of the electrodes. This statement implies that the molded plastics material could also surround the upper portion of the initiator. Both Taylor et al. and Craig et al. teach that it is old and well known in the art to substantially surround all of an initiator subassembly except for an exposed portion of a connector end with an electrically-nonconductive body to form a protective casing. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the integral and unitary overmolded plastic body 10 surround substantially all of the initiator subassembly of the Refouvelet et al. initiator to form a protective casing therefor, as taught by either Taylor et al or Craig et al.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Hansen et al. (US 5,932,832 A) and either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A).

Refouvelet et al., Taylor et al. and Craig et al. are applied as above. However, they do not disclose a nylon overmolded body. Refouvelet et al. disclose that the molding 10 can be formed of a polyamide. Hansen et al teach, in Fig. 2, that it is old and well known in the art to form an overmolded body of an initiator of nylon. Nylon is a well known polyamide. To form the overmolded body of the initiator formed by the combination of Refouvelet et al. and either Taylor et al. or Craig et al. of nylon, as taught by Hansen et al., would have been obvious to one having ordinary skill in the art at the time the invention was made.

9. Claims 12-14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Swann et al. (US 6,295,935 B1) and either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A). Refouvelet et al, Taylor et al. and Craig et al. are applied as above. However, Refouvelet et al, Taylor et al and Craig et al do not state that the overmolded body is formed by injection molding. Swann et al. teach injection molding to be an old and well known method of molding an overmolded body around an initiator subassembly. To injection mold the overmolded body around the subassembly initiator formed by

the combination of Refouvelet et al. and either Taylor et al. or Craig et al. as taught by Swann et al., would have been obvious to one having ordinary skill in the art at the time the invention was made.

Regarding claim 20, Refouvelet et al. disclose that the pyrotechnic substance 2 is provided such that it *"completely fill the casing 3 and to be in intimate contact with the filament 9"* (col. 4, lines 1-6 and fig. 1).

10. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Swann et al. (US 6,295,935 B1), Seavey (US 2,968,985 A) and either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A). Refouvelet et al., Swann et al., Taylor et al. and Craig et al. are applied as above. However these references do not disclose injecting the molten material at the upper region of the initiator subassembly. Seavey teaches that it is old and well known in the art to vary the position of the injection points in a mold to achieve a desired result, note lines 30-35, col. 3. It would have been obvious to one having ordinary skill in the art at the time that the invention was made to inject the molten material at the upper region of the initiator subassembly in the method formed by the combination of Refouvelet et al., Swann et al., and either Taylor et al., or Craig et al. in view of the teachings of Seavey.

11. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Swann et al. (US 6,295,935 B1),

Hansen et al. (US 5,932,832 A) and either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A). References are applied as above. To injection mold a nylon overmolded body around the subassembly of the initiator formed by the combination of Refouvelet et al. and either Taylor et al. or Craig et al, as taught by Swann et al. and Hansen et al, would have been obvious to one having ordinary skill in the art at the time the invention was made.

### ***Response to Arguments***

12. Applicant's arguments filed 4/9/2004 have been fully considered but they are not persuasive.

13. In an attempt to set the record straight, it should be noted that the examiner has relied upon Refouvelet et al.'s first embodiment as depicted in fig.1 and not the second embodiment of fig. 2 as argued in applicants' arguments.

14. Applicants allege that the combinations of Refouvelet et al. and either Taylor et al. or Craig et al. are improper because there is no suggestion in Refouvelet et al. of surrounding substantially all of the initiator subassembly with an electrically non-conductive overmolded body. Lines 4-6 of the abstract of Refouvelet et al. state that the casing includes a molded plastics material surrounding **at least** the end plate and a portion of the electrodes. Applicants allege that overmolded body of Refouvelet et al. is limited to only the bottom portion of the initiator subassembly. The examiner disagrees. The above statement, which includes the phrase "at least", clearly implies that the molded plastics material could surround the upper portion of the initiator.

Furthermore, the secondary references, Taylor et al. and Craig et al., clearly teach



that it is old and well known in the art to substantially surround all of an initiator subassembly except for an exposed portion of a connector end with an electrically-nonconductive body to form a protective casing. Therefore, to have the overmolded plastic body 10 surround substantially all of the initiator subassembly of the Refouvelet et al. initiator to form a protective casing, as taught by either Taylor et al. or Craig et al., would have been obvious to one having ordinary skill in the art at the time the invention was made. In the light of the arguments presented in the amendment filed 4/9/2004, the applicants are reminded that the examiner is not modifying Refouvelet et al. with the actual protective casings of either Taylor et al. or Craig et al. but is instead modifying Refouvelet et al. with the teaching found in either Taylor et al. or Craig et al., of surrounding all of an initiator subassembly except for an exposed portion of a connector end with an electrically-nonconductive body to form a protective casing.

15. Applicants allege that the combinations of Refouvelet et al. and either Taylor et al. or Craig et al. are improper because both Taylor et al. and Craig et al. teach thin coverings that do not appear to be injection-molded and do not provide structural support or any installation orientation features. A secondary reference need not disclose all the elements of the claimed invention. Both Taylor et al. and Craig et al. teach that it is old and well known in the art to substantially surround all of an initiator subassembly except for an exposed portion of a connector end with an electrically-nonconductive body to form a protective casing. The primary reference, Refouvelet et al., clearly discloses an integral and unitary molded plastic body surrounding the

initiator subassembly which provides structural support and installation orientation features. Therefore, the combinations of references are deemed to be proper.

16. Applicants allege that the combination of Refouvelet et al. and Taylor et al. is improper because it would have not been obvious to one having ordinary skill in the art at the time the invention was made to apply a rubberlike coating to an automotive initiator in view of the teaching of Taylor et al. Taylor et al are being used solely for their teaching that it is old and well known in the art to substantially surround all of an initiator subassembly except for an exposed portion of a connector end with an electrically nonconductive body to form a protective casing. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the integral and unitary overmolded body 10 of Refouvelet et al. surround substantially all of the initiator subassembly to form a protective casing in view of the teaching of Taylor et al.

### ***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Naugler et al. (US 6,274,252 B1) discloses a hermetic glass-to-metal seal useful in headers for airbags.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Bergin whose telephone number is 703 308-

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8549. The examiner can normally be reached on Monday - Wednesday and Friday, 8.30 - 5.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703 306-4198. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



James S. Bergin

